

**REMARKS**

In the Office Action, the Examiner rejected claims 75 and 90-101 under 35 U.S.C. § 103(a) as being unpatentable over Custance et al. (U.S. Patent No. 6,238,910) in view of Reichler (U.S. Patent No. 5,578,270); rejected claims 102-113, 116-118, 120, and 121 under 35 U.S.C. § 103(a) as being unpatentable over Custance in view of Reichler and Ammann et al. (U.S. Patent Pub. No. 2005/0233370); rejected claims 75 and 90-101 under 35 U.S.C. § 103(a) as being unpatentable over Custance in view of Reichler and Kalra et al. (U.S. Patent No. 6,495,106); and rejected claims 102-113, 116-118, 120, and 121 under 35 U.S.C. § 103(a) as being unpatentable over Custance in view of Reichler, Ammann, and Kalra.

By this Amendment, Applicants amend claims 75, 102, and 118. Claims 75, 90-113, 116-118, 120, and 121 remain pending. Of these claims, claims 75, 102, and 118 are independent.

**I. 35 U.S.C. §103(a) rejection of claims 75 and 90-101 over Custance in view of Reichler**

Applicants respectfully traverse the 35 U.S.C. §103(a) rejection of claims 75 and 90-101 over Custance in view of Reichler. The Office Action asserts that Custance and Reichler disclose all of the elements of the rejected claims and, further, that it would have been obvious to a person of ordinary skill in the art at the time of invention to combine these references. Applicant respectfully disagrees. The cited references, taken alone or in combination, fail to disclose all of the features of amended claim 75, including at least "a moveable robotic member for dispensing fluid on the at least one

carrier; wherein the at least one carrier is inserted or removed during the processing protocol without interrupting movement of the robotic member."

The Office Action, at page 4, acknowledges that Custance does not disclose the claimed "moveable robotic member," but asserts that "[b]ecause [Custance] specifically teach[es] that each of the thermal management modules are operate independently, it is understood that each slide may be inserted or removed during the processing protocol without interrupting a processing of another sample." Applicants respectfully disagree that such a teaching can be understood from Custance. Even if, however, Custance can be understood to teach that a slide may be inserted or removed without interrupting a processing of another sample, Custance does not teach that "at least one carrier is inserted or removed during the processing protocol without interrupting movement of the robotic member," as required by amended claim 75.

Furthermore, the alleged understood disclosure of Custance regarding the insertion and removal of samples during processing is incompatible with the robotic arm disclosed by Reichler. The Office Action asserts that Reichler teaches "that samples are moved between various work stations using a robotic arm (Figure 3:190) in communication with a pipette and pressurization means." Reichler discloses, at col. 9, lines 15-16, that "arm 190 carries out hydropneumatic aspiration and dispensing functions." Reichler, however, further teaches, at col. 17, lines 32-34, that "[p]rior to the start of the assay, the trays 86 are loaded with the desired number of reaction devices 88 and assay devices 90." Finally, Reichler teaches, at col. 23, lines 8-12, that "[w]hen the foregoing sequence of operations has been completed for each of the reaction stations 78-84, the automated portion of the nucleic acid assay is complete. The trays

86 are now be removed from the reaction area 66 of the cabinet 22." Thus, Reichler teaches loading all of the to-be-processed trays, performing automated assay processing steps with a robotic arm, and then removing all of the processed trays. Reichler does not disclose or suggest that "at least one carrier is inserted or removed during the processing protocol without interrupting movement of the robotic member," as recited by claim 75.

Furthermore, as illustrated in Fig. 3, Reichler discloses an apparatus in which robotic arm 190 is disposed above the position of the loaded slide trays 86, which are locked into position by pivotable arms 102. *Reichler*, col. 6, lines 12-16. In order to access the slide trays 86, pivotable arm 102 must be raised, as illustrated in Fig. 3. Due to this arrangement, both pivotable arms 102 and the arms of an operator manually removing the samples would interfere with the movement of robotic arms 190. Such interference could be injurious to an operator or damaging to the apparatus. Thus, the apparatus of Reichler is incompatible with "at least one carrier [being] inserted or removed during the processing protocol without interrupting movement of the robotic member."

Custance and Reichler, therefore, taken alone or in combination, do not disclose each and every feature of amended claim 75. No prima facie case of obviousness has been established. Claims 90-101 depend from claim 75, and are likewise not obvious in view of the cited references.

**II. 35 U.S.C. §103(a) rejection of claims 102-113, 116-118, 120, and 121 over Custance in view of Reichler and Amman.**

Applicants respectfully traverse the 35 U.S.C. §103(a) rejection of claims 102-113, 116-118, 120, and 121 over Custance in view of Reichler and Amman. The cited references, taken alone or in combination, do not disclose all of the features of independent claims 102 and 118, including at least “a moveable robotic member for dispensing fluid on the at least one carrier; wherein the at least one carrier is inserted or removed during the processing protocol without interrupting movement of the robotic member.”

The Office Action cites Amman as allegedly disclosing an apparatus capable of regulating the temperature of a plurality of reagents. Amman does not, however, disclose or suggest “a moveable robotic member for dispensing fluid on the at least one carrier; wherein the at least one carrier is inserted or removed during the processing protocol without interrupting movement of the robotic member.” As discussed above, Custance and Reichler also do not disclose or suggest this feature.

Because the cited references, taken alone or in combination, do not disclose all of the features of independent claims 102 and 118, no prima facie case of obviousness is established. Claims 103-113, 116, 117, 120, and 121 depend from claims 102 and 118, and are also not obvious in view of the cited references for at least the same reasons.

**III. 35 U.S.C. §103(a) rejection of claims 75 and 90-101 over Custance in view of Reichler and Kalra**

Applicants respectfully traverse the 35 U.S.C. §103(a) rejection of claims 75 and 90-101 over Custance in view of Reichler and Kalra. The Office Action, at page 8, relies on Kalra to allegedly provide evidence “that it is known in the art to insert/remove a

sample carrier during processing without interrupting the processing of other samples.” Even if such a teaching were found in Kalra, however, Kalra does not remedy the above-discussed deficiencies of Custance and Reichler with respect to the disclosure of “a moveable robotic member for dispensing fluid on the at least one carrier; wherein the at least one carrier is inserted or removed during the processing protocol without interrupting movement of the robotic member.”

The Office Action asserts that Kalra “state[s] that slides can be removed from the system without interrupting the processing of remaining slides.” Kalra, however, discloses a staining apparatus wherein slide trays 190 are removable from the top of the apparatus. See Kalra, FIG. 1. In Kalra, removal of a reagent vial holder 120 requires reaching, from above, through the plane on which the movable arm 30 operates.

As illustrated in FIG. 1, Kalra discloses an apparatus in which a movable arm 30 is arranged above an array of slide trays 190. The slide trays 190 are disclosed to be removed from above. Due to this arrangement, it is possible for an operator to interfere with the moveable arm 30 if appropriate safety precautions are not taken. Such interference could be injurious to an operator or damaging to the apparatus. Thus, in order to prevent interference between an operator and the movable arm, Kalra discloses at col. 9, line 66 to col. 10, line 3, that “moveable arm 30 is shown in its home position, to which the arm returns when not in use. The home position is desirably selected to minimize interference with other operations, such as the insertion of microscope slides.” Additionally, Kalra, at col. 17, lines 19-21 discloses “that the apparatus can process trays of slides in a manner which completes the prescribed processing on a single tray 190, and then signal the user to remove the tray and replace

it with a fresh tray.” Thus, Kalra discloses an apparatus that signals the user to remove a slide tray 190 and positions the moveable arm 30 in a safe “home position,” during this operation. Kalra, therefore, does not disclose or suggest “a moveable robotic member for dispensing fluid on the at least one carrier; wherein the at least one carrier is inserted or removed during the processing protocol without interrupting movement of the robotic member.”

Because the cited references, taken alone or in combination, do not disclose all of the elements of independent claim 75, no prima facie case of obviousness is established. Claims 90-101 depend from claim 75 and are therefore also not obvious in view of the cited references for at least the same reasons.

**IV. 35 U.S.C. §103(a) rejection of claims 102-113, 116-118, 120, and 121 over Custance in view of Reichler, Amman, and Kalra**

Applicants respectfully traverse the 35 U.S.C. §103(a) rejection of claims 102-113, 116-118, 120, and 121 over Custance in view of Reichler, Amman, and Kalra. As discussed above, none of the cited references discloses or suggests “a moveable robotic member for dispensing fluid on the at least one carrier; wherein the at least one carrier is inserted or removed during the processing protocol without interrupting movement of the robotic member,” as recited by independent claims 102 and 118. Therefore, no prima facie case of obviousness has been established. Claims 103-113, 116, 117, 120, and 121 depend from claims 102 and 118 and are also not obvious in view of the cited references for at least the same reasons.

**V. CONCLUSION**

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 75, 90-113, 116-118, 120, and 121 in condition for allowance. Applicants submit that the proposed amendments of claims 75, 102, and 118 do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were either earlier claimed or inherent in the claims as examined. Therefore, this Amendment should allow for immediate action by the Examiner.

Applicants submit that the entry of the amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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